

ABSTRACT

The present invention relates to a merging network for multiple data streams comprising a pipelined butterfly network. The pipelined butterfly network comprises an input network for receiving a plurality of data streams of mutually constant widths, each data stream having logically related data bits carried on contiguous signal lines, a butterfly network containing suitably interconnected register and multiplexer means for rearranging the received data streams into a time-multiplexed constant-width output data stream, the output data stream having a width equal to or greater than the sum of the widths of the input data streams, and an output network for providing the output data stream interleaved to an output bus.